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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,074	04/23/2001	Gerhard Coufal	2001-0462A	9813

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EXAMINER
BALASUBRAMANIAN, VENKATARAMAN

ART UNIT	PAPER NUMBER
1624	9

DATE MAILED: 09/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/830,074	COUFAL, GERHARD	
	Examiner	Art Unit	
	Venkataraman Balasubramanian	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Applicants' response, which included amendment to claims 1-11 and addition of new claims 12-14, along with a declaration from Gerhard Coufal, f filed on 6/13/2002, is made of record.

Claims 1-14 are now pending.

In view of applicants' response, particularly amendment to claims 1-11, the112 rejection and objection made in the previous office action have been obviated.

However, the following prior art rejections remain.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, 9, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kokubo et al. US 3,637,686 for reasons of record. Note this rejection is same as made in the previous office action except that the newly added claims are also rejected herein.

Applicants' traversal to overcome this rejection is not persuasive. Applicants assert that whereas Koboku teaches solidified melamine obtained from cooling with ammonia is treated with aqueous ammonia, instant process differs in requiring that the melamine melt be cooled 1 to 50 ° C before treating with aqueous ammonia and that this limitation is not taught by Kobuko. This is not a persuasive argument. First of all,

there is no showing that applicants' process controls the temperature to such and extent that a one degree variation (i.e. 1° C below the melting point of melamine-the solidification point)) or a small variation is never permitted. Secondly, the claim language permits "about 1° C, which can include the solidification temperature of melamine

Hence one trained in the art would know that such a small variation in temperature is permissible in such industrial process and would consider few degree variations form the teaching of Kobuko as acceptable. See In re Petering et al 133 USPQ 275; In re Schaumann, 195 USPQ 5, In re Sivaramakrishnan 213 USPQ 441 wherein a small genus is attested to be anticipated by single exemplified species in the genus.

Hence the rejection is proper and is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-7, 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubo et al. US 3,637,686 in view of Elvers et al. Ullmann's Encyclopedia of Industrial Chemistry, 5th Edition, vol A16, 174-179, 1978 for reasons of record. The

rejection is same as made in the previous office action except that the newly added claims 12-14 are also rejected herein.

Applicants' argument to overcome this rejection is not persuasive.

1. Applicants ask 'why should a person skilled in the art perform an additional treatment, if he would reasonably expect that due to water treatment the melamine yield drops heavily, hydrolysis products produced and in addition the amount of NH_3 to be recovered from the mother liquors at the end of the day? Yet applicants contradict their own statement, which appears dissuade one trained in the art to treat melamine with aqueous ammonia, by reciting in the instant claims the same steps they consider as not worthwhile and also provide a declaration describing treatment of melamine with aqueous ammonia.

   Hence, it is not clear what this argument meant to be.

2. Answer to the question is clear evident in Kobuko' teaching. See col. 2, especially lines 23-72 wherein Koboku teaches the need for such aqueous treatment and shows a melamine purity of 99.5 % in the example 1 and 99.8 % in example 2.

3. The declaration of Gerhard Coufal is not sufficient to obviate the 103 rejection for more than one reasons.

   First of all, the comparative data provided is not relevant as the comparison of the process are not proper. Applicants have elected to use temperature of 370° C for the comparison with the instant process at 320° C but have not provided the rationale for selecting the above use of temperature of 370° C. It is not clear what prior art process applicants are trying to obviate as obvious variant.

One trained in the art would know that given the identical conditions as in the comparative experiments, a variation in temperature would influence the rate of the reaction base on his knowledge of Arrhenius equation. In the instant case the formation of hydrolysis product of melamine is likely to increase with increase with temperature given the fact that all other experimental conditions remain the same. Hence, the improvement in purity of melamine is not unexpected but obvious. The choice of the temperature of 370° C if arbitrary, then the results are biased and are not significant to obviate the obviousness.

In addition, applicants seem to assert that the instant invention relies on the limitation of cooling melamine melt 1 to 50 ° C above the melting point of melamine at the prevailing pressure which is not taught anywhere in the prior art. However, number prior art process including those cited in the IDS, the declaration and Canzi et al. teach and suggest use of temperature range with the lower limit being above the melting point of melamine. Hence one trained in the art would be able to arrive at the above stated temperature 1 to 50 ° C based on the teaching of the prior art knowledge

Furthermore, note the court held, 'generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by

routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In the instant case, examiner has relied on the prior art, and state of the art at the time the invention was made. Hence it is proper.

Most of all, applicants have not shown any comparative data with the closest prior art process, See MPEP 716.02(b), which states:

The evidence relied up should establish "that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance." Ex parte Gelles, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Inter. 1992). Note Gelles, especially the following quote: " The evidence relied upon also should be reasonably commensurate in scope with the subject matter claimed and illustrate the claimed subject matter " as a class" relative to prior art subject matter."

For these reasons the 103 rejection made in the previous office action are maintained.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canzi et al. US 5,721,363 in view of Van Hardeveld US 4,408,046 for reasons of record. The rejection is same as made in the previous office action except that the newly added claims 12-14 are also rejected herein.

Applicants' argument to overcome this rejection is not persuasive.

1. Contrary to applicants' urging, Canzi et al. teaches cooling of melamine at a temperature above the melting point of melamine. See col.
2. Van Hardeveld et al. clearly teaches treatment of melamine both from high pressure and low pressure process to obtain high purity melamine.
3. Applicants have not shown why combination of these two art would not be an obvious variant. See above discussion of the declaration, which is deemed, as not acceptable.

For these reasons the 103 rejection made in the previous office action are maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (703) 305-1674. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is Mukund Shah whose telephone number is (703) 308-4716.

The fax phone number for the organization where this application or proceeding is assigned (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

V. Balasubramanian
Venkataraman Balasubramanian

9/5/2002